

## Claims

What is claimed is:

1. A stereoscope that is viewable in the upright and inverted positions consisting of:
  - (a) eyepieces with adjustable interpupillary distance,
  - (b) a two way mirror separating a front chamber and a rear chamber so that each of said chambers has independent lighting,
  - (c) means of adjusting the relative brightness of left and right sides, and
  - (d) means of controlling the on and off rate of the lighting and the period of the lighting,
 whereby images can be viewed by children and adults for measurement of binocularity, stereopsis, and binocular rivalry.
2. A process of formatting visual stimuli consisting of:
  - (a) similarly shaped non-rivalrous fusible stimuli of similar binocular luminance and
  - (b) similarly shaped rivalrous fusible stimuli of different binocular luminance,
 whereby binocularly viewed stimuli form distinctive identifiable shapes that transform during perception and distinguish fusion from suppression.
3. A process according to claim 2 where said non-rivalrous and rivalrous stimuli are composed of complementary colors, viewed through lenses of said complementary colors, and presented on printed material.
4. A process according to claim 2 where said non-rivalrous and rivalrous stimuli are composed of complementary colors, viewed through lenses of

- said complementary colors, and presenting simultaneously or sequentially by a computer program for viewing on a monitor.
5. A process according to claim 2 where said non-rivalrous and rivalrous stimuli are composed of complementary colors, viewed through lenses of said complementary colors, and presenting simultaneously or sequentially by a computer program for viewing on a projection screen.
  6. A process according to claim 2 where said non-rivalrous and rivalrous stimuli are composed of complementary colors, presenting simultaneously or sequentially in a computer program for transmission over the Internet, and viewing on a monitor through lenses of said complementary colors.
  7. A process according to claim 2 where said non-rivalrous and rivalrous stimuli are viewed through a stereoscope.
  8. A pair of lenses of complementary colors with means of attenuating the light passing through one of said lenses and of reversing the sides of said lenses while maintaining the same interocular brightness difference.